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REPUBLIC OF MOLDOVA

JOINT WORLD BANK-IMF DEBT SUSTAINABILITY ANALYSIS

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REPUBLIC OF MOLDOVA: JOINT BANK-FUND DEBT SUSTAINABILITY ANALYSIS	
Risk of external debt distress	Low
Overall risk of debt distress	Moderate
Granularity in the risk rating	Not Applicable
Application of judgment	No

The Debt Sustainability Analysis (DSA) assesses Moldova at low risk of external debt distress and overall public debt at moderate risk of distress, unchanged from the May 2022 DSA.[1] Moldova's public debt is considered sustainable with current debt carrying capacity assessed as strong,[2] despite the envisaged increasing financing needs to mitigate the economic and humanitarian fallout of the Russian invasion of Ukraine, and the projected medium-term developmental spending needs. Overall, the public debt trajectory remains vulnerable to risks, particularly from shocks to real GDP growth, calling for the need to broaden growth drivers and to remain committed to prudent fiscal policy under the ECF/EFF program. In addition, improving governance, enhancing the effectiveness of public spending, and strengthening the management of fiscal risks, including those stemming from state-owned enterprises (SOEs), are priorities to contain public debt vulnerabilities.

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[1] The previous DSA, dated May 3, 2022, accompanied Moldova's Staff Report for an Ad Hoc review under the ECF/EFF program and request for augmentation and rephasing of access, modification of performance criteria and completion of the inflation consultation, IMF Country Report No. 22/140.

[2] Moldova's Composite Indicator (CI) index, based on October 2022 WEO update and the World Bank's 2021 Country Policy and Institutional Assessment (CPIA), indicates that the country's debt carrying capacity remain strong (3.11).

PUBLIC DEBT COVERAGE

1. Moldova's public debt includes obligations of the public sector (central government, local authorities, and public entities). Public debt includes external and domestic obligations of the central government, including arrears to suppliers and guaranteed debt. Domestic debt includes debt of state and municipal enterprises, companies with full or majority public ownership, and of local public authorities with maturity of a year and above, as stipulated in Law No. 419 (2006) on Public Sector Debt, State Guarantees and State On-lending.[3] Debt contracted by the central government and central bank owed to the IMF is also covered.[4] The debt coverage is on the residency basis.

Text Table 1. Moldova: Public Debt Coverage

Public debt coverage

	Subsectors of the public sector	Check box
1	Central government	X
2	State and local government	X
3	Other elements in the general government	
4	o/w: Social security fund	X
5	o/w: Extra budgetary funds (EBFs)	
6	Guarantees (to other entities in the public and private sector, including to SOEs)	X
7	Central bank (borrowed on behalf of the government)	X
8	Non-guaranteed SOE debt	X

Public debt coverage and the magnitude of the contingent liability tailored stress test

1	The country's coverage of public debt	The central, state, and local governments plus social security, central bank, government-guaranteed debt, non-guaranteed SOE		
		Default	Used for the analysis	Reasons for deviations from the default settings
2	Other elements of the general government not captured in 1.	0 percent of GDP	0.0	
3	SoE's debt (guaranteed and not guaranteed by the government) 1/	2 percent of GDP	2	
4	PPP	35 percent of PPP stock	0.0	
5	Financial market (the default value of 5 percent of GDP is the minimum value)	5 percent of GDP	10	
	Total (2+3+4+5) (in percent of GDP)		12.0	

1/ The default shock of 2% of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition (1.). If it is already included in the government debt (1.) and risks associated with SoE's debt not guaranteed by the government is assessed to be negligible, a country team may reduce this to 0%.

BACKGROUND ON DEBT

2. Public debt declined in 2021 to 33.2 percent of GDP, from almost 34 percent of GDP in 2020, reflecting unwinding of the pandemic-induced increase in borrowing and the denominator effect from strong GDP. Public and publicly guaranteed (PPG) debt reached almost 34 percent of GDP in 2015 up from about 27 percent of GDP in 2010 (Text Figure 1). A key driver of the spike in the public debt was the issuance of a state guarantee to the National Bank of Moldova (NBM) to provide emergency liquidity to the banking sector. During 2016–19, public debt was on a downward trend, returning towards the level seen in 2010. However, in 2020, COVID pandemic-induced borrowing pushed up public debt, driven by

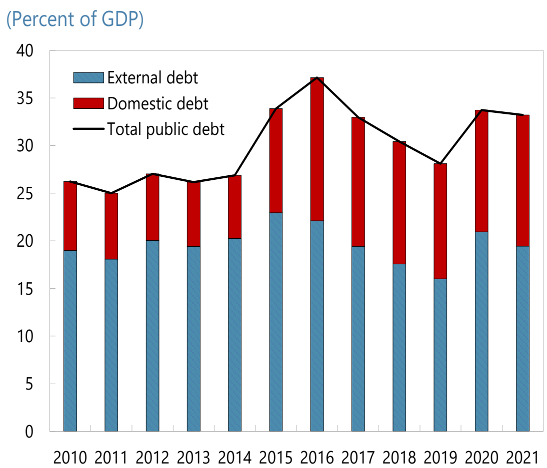
[3] PPG debt covers gross debt of the general government. SOE debt in Moldova is primarily driven by externally financed project loans that are on-lent by the central government to SOEs. Both on-lending to the private sector (operationalized through commercial banks) and to SOEs are part of public guarantees and are included in the central government debt. Non-guaranteed SOEs debt is also included in the public debt. Debt of SOEs with maturity longer than a year accounts for about 2 percent of GDP as of 2021. Staff and the authorities will define an agenda with concrete steps towards expanding debt coverage for local governments' debt, SOEs and PPPs to include all existing debt obligations. Due to the lack of data, information on PPPs is currently limited. The change in coverage complicates intertemporal analysis of PPG debt. The contingent liabilities shock from SOE debt is set at the default value of 2 percent of GDP to reflect risks associated with borrowing of SOEs majority owned by the state, while a contingent liability shock of 12 percent of GDP is meant to also capture risks from PPPs and SOEs that are partially owned by the state.

[4] Includes obligations on the SDR allocation in 2021 (about US$236 million).

increases in both domestic and external debt (Table 1).[5] A rebound in strong economic activity and receding tailwinds from COVID-19 reduced government spending and borrowing in 2021, contributing to a decline in public debt to 33.2 percent of GDP. Currently, over half of PPG external debt is from multilateral institutions and about a third of PPG domestic marketable debt are long-term debt securities (government securities with maturity longer than one year). Other domestic marketable debt is mainly short-term and held by the banking system. In addition, the stock of domestic arrears to suppliers amounting to about MDL 30 million (0.01 percent of GDP) by end-2021 is included in domestic debt.

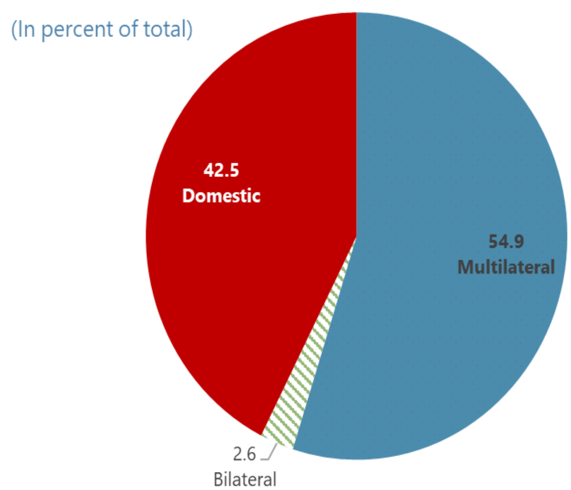
Text Figure 1. Public and Publicly Guaranteed Debt

Evolution of Public Debt, 2010–2021



Source: IMF WEO and IMF staff calculations.

Composition of Public Debt Stock at end-2021



3. **Similarly, Moldova's gross total external debt declined by almost 9 percentage points of GDP in 2021 from 73.5 percent of GDP in 2020, driven by reduced private external borrowing.** In 2021, PPG external debt declined by 1.5 percentage points of GDP from 2020 of about 21 percent of GDP, reflecting tailwinds of the base effect of higher external borrowing to mitigate the effects of the pandemic in 2020 compared to about 16 percent of GDP in 2019. The observed reduction of gross total external debt during 2016–19 largely reflects the decline in private external debt, which at above 40 percent of GDP since 2010[6], remains relatively elevated compared to peers. The strong appreciation of the nominal exchange rate by about 14 percent during this period amid renewed capital inflows also contributed to the reduction in gross external debt. The recent decline in private sector debt was due to a decrease in overseas borrowing by the banking sector, reflecting the aftereffects of the impact of the banking crisis in 2014.[7] Similar to other Central and Eastern European countries, while gross total.

[5] Although eligible, Moldova did not participate in the 2020–21 Debt Service Suspension Initiatives.

[6] Private external debt includes Moldovagaz debt owed to Gazprom for gas delivery to Moldova, contributing to a peak in private external debt at about 47 percent of GDP in 2024, with the total external debt reaching 77.3 percent of GDP.

[7] National Bank of Moldova (NBM) is working continuously on improving the coverage of private sector debt. This explains the changes in historical debt numbers from period to period.

Table 1. Moldova: Decomposition of Public Debt and Debt Service by Creditor, 2021–23 1/
(Millions of U.S. dollars, unless otherwise indicated)

	Debt Stock (end of period)			Debt Service					
	2021			2021	2022	2023	2021	2022	2023
		(Percent total debt)	*(Percent GDP)*				*(Percent GDP)*		
Total	4611.3	100.0	33.7	1925.4	1704.6	2060.7	14.1	11.7	13.4
External	2650.9	57.5	19.4	226.0	205.3	342.3	1.7	1.4	2.2
Multilateral creditors[2,3]	2532.1	54.9	18.5	154.4	170.9	332.1	1.1	1.2	2.2
IMF	832.0	18.0	6.1						
World Bank	813.5	17.6	5.9						
ADB/AfDB/IADB	0.0	0.0	0.0						
Other Multilaterals	886.6	19.2	6.5						
o/w: list largest two creditors	580.7	12.6	4.2						
EIB	422.2	9.2	3.1						
EBRD	158.5	3.4	1.2						
list of additional large creditors	0.0	0.0	0.0						
Bilateral Creditors[2]	118.8	2.6	0.9	60.5	34.4	10.2	0.4	0.2	0.1
Paris Club	111.8	2.4	0.8	23.7	28.1	10.0	0.2	0.2	0.1
o/w: list largest two creditors	68.8	1.5	0.5						
JICA	49.6	1.1	0.4						
Government of Russia	19.2	0.4	0.1						
list of additional large creditors	0.0	0.0	0.0						
Non-Paris Club	7.0	0.2	0.1	36.8	6.3	0.2	0.3	0.0	0.0
o/w: list largest two creditors	6.5	0.1	0.0						
Government of Romania	5.7	0.1	0.0						
Novo Gaming M Technologies GMBH	0.9	0.0	0.0						
list of additional large creditors	0.0	0.0	0.0						
Bonds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial creditors	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o/w: list largest two creditors	0.0	0.0	0.0						
list of additional large creditors	0.0	0.0	0.0						
Other international creditors	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o/w: list largest two creditors	0.0	0.0	0.0						
list of additional large creditors	0.0	0.0	0.0						
Domestic	1960.4	42.5	14.3	1699.3	1499.4	1718.4	12.4	10.3	11.2
Held by residents, total	1960.3	42.5	14.3	1699.3	1499.4	1718.4	12.4	10.3	11.2
Held by non-residents, total	0.1	0.0	0.0						
T-Bills	1021.2	22.1	7.5	1410.8	1373.1	1488.6	10.3	9.4	9.7
Bonds	854.7	18.5	6.2	212.8	95.1	204.3	1.6	0.7	1.3
Loans*	84.5	1.8	0.6	75.7	31.1	25.4	0.6	0.2	0.2
Memo Items:	103.4								
Collateralized debt[4]	0.0	0.0	0.0						
o/w: Related	0.0	0.0	0.0						
o/w: Unrelated	0.0	0.0	0.0						
Contingent liabilities	103.4		0.8	0.0	0.5	0.5	0.0	0.0	0.0
o/w: Public guarantees	103.4		0.8	0.0	0.5	0.5	0.0	0.0	0.0
o/w: Other explicit contingent liabilities[5]	0.0	0.0	0.0						
Nominal GDP	13679.2			13679.2	14613.4	15402.3			

1/ As reported by Country authorities according to their classification of creditors, including by official and commercial.

2/ Some public debt is not shown in the table due to confidentiality clauses/capacity constraint.

3/ Multilateral creditors" are simply institutions with more than one official shareholder and may not necessarily align with creditor classification under other IMF policies (e.g. Lending Into Arrears)

4/ Debt is collateralized when the creditor has rights over an asset or revenue stream that would allow it, if the borrower defaults on its payment obligations, to rely on the asset or revenue stream to secure repayment of the debt. Collateralization entails a borrower granting liens over specific existing assets or future receivables to a lender as security against repayment of the loan. Collateral is "unrelated" when it has no relationship to a project financed by the loan. An example would be borrowing to finance the budget deficit, collateralized by oil revenue receipts. See the joint IMF-World Bank note for the G20 "Collateralized Transactions: Key Considerations for Public Lenders and Borrowers" for a discussion of issues raised by collateral.

5/ Includes other-one off guarantees not included in publicly guaranteed debt (e.g. credit lines) and other explicit contingent liabilities not elsewhere classified (e.g. potential legal claims, payments resulting from PPP arrangements).

* Debt service projection does not include data on interest payment on SOE and local authorities contracts

external debt in Moldova is sizable at 64.2 percent of GDP in 2021, about two-third of the private debt are liabilities to direct investors (Moldovan foreign-owned companies borrowing from their parent companies abroad). Short-term debt of the non-bank sector is high as well, about one-third of non-bank debt, and consists of trade credits, arrears, and other debt liabilities, mostly for the import of natural resources. Foreign assets of the non-bank sector have shrunk in recent years but remain sizable (about 35 percent of gross nonbank external liabilities) and mainly held in the form of currency, deposits, and short-term loans (trade credits). Thus, while high private external debt in Moldova continues to pose risks to external debt sustainability, risk of external public debt distress is assessed as low because PPG external debt is held mainly by multilateral and bilateral donors and is mostly medium and long term and on concessional terms.

MACROECONOMIC OUTLOOK

4. **The macroeconomic assumptions underlying the projections are consistent with the baseline in the second review of the ECF/EFF-supported program.** The main changes relative to the previous DSA of May 2022 include downward revision to the 2022–25 real GDP growth, almost doubling of the 2022 annual inflation (affecting both the nominal GDP and GDP deflator), and upward adjustment to the nominal GDP (Text Table 2). In addition, the fiscal deficit for 2022 was also revised down by 3 percentage points of GDP, while for 2023 it was revised up by 0.9 percentage point of GDP. Additional financing has mostly been on concessional terms, coupled with an uptick in grants. Long run macroeconomic assumptions remain broadly unchanged. Economic performance is expected to remain solid over the medium term, with steady growth, moderate inflation, and a gradual narrowing of the current account deficit. Risks to the near-term outlook are significant and tilted to the downside as Moldova continues to grapple with persistent external and domestic headwinds.

- **Real GDP.** 2021 real GDP growth was higher than envisaged, jumping to almost 14 percent, reflecting a stronger-than-expected recovery from the pandemic.[8] However, the economy is expected to contract by 1.5 percent in 2022 with more subdued recovery in the near-term, owing to impact on Moldova from the war on Ukraine, weaker growth profile for the trading partners, and a drought this year that weighed on agriculture. Spillovers from the war will impact the economy through a variety of channels in the near and medium-term: disruptions to trade depressing net exports, adverse confidence effects weighing on foreign and domestic investment and exerting pressure on FX market. Remittances could also be impacted, although the impact is unknown at this point. High energy costs, in particular the hike in gas and electricity tariffs, coupled with anticipated higher food prices and implied uncertainty are also expected to negatively affect aggregate demand. The economic impact of the war is projected to persist over the medium term, with real GDP standing at 10 percent below its pre-conflict level in 2026. Over the medium term, the additional fiscal support envisioned under the program is expected to be directed to address critical human and infrastructure

[8] In 2018, Moldova's National Bureau of Statistics (NBS) published revised GDP series for 2016 and 2017, based on new methodology to reflect: a) implementation of the UN's System of National Accounts 2008 (2008 SNA) and the European System of Accounts 2010 (ESA 2010); and b) statistical improvements regarding data sources and compilation methods. The changes were introduced with technical assistance from the Fund. As a result of the new methodology, the level of both nominal and real GDP was revised up by about 17 percent. The sizeable GDP revision implies a reduction in key macroeconomic ratios (including debt-to-GDP ratios).

bottlenecks (which have been ringfenced by a “floor” in the development spending as part of the IMF-supported program).

- **Inflation.** Driven by rising food prices and adjustments in energy tariffs, inflation accelerated to 34.6 percent (y/y) in October, due to still-high food and energy prices. The war on Ukraine is also putting pressure on the MDL which depreciated significantly since Russian invasion of Ukraine, with pass-through expected to exert pressure on domestic prices. Recent developments in the gas market have further complicated the picture due to high tariff adjustments feeding into regulated prices, while the implied decrease in purchasing power and arising uncertainty might curtail aggregate demand and core inflation. For 2022, average inflation is projected to rise to almost 29 percent (y/y), before receding towards the inflation target at end-2024 and over the medium-term, where inflation is expected to remain broadly anchored around the National Bank’s inflation target. The inflation outlook is subject to significant downside risks.

- **Fiscal.** The fiscal position improved in 2021, with the deficit falling to 2.6 percent of GDP from 5.3 percent in the previous year due to spending under-execution and buoyant revenues, including increased grant financing. However, the energy crisis and spillover effects of the war on Ukraine are expected to strain the government balance sheet in 2022, with the deficit expected to increase to 4.2 percent of GDP, significantly lower than budgeted, reflecting strong revenue performance and under-execution of capital and current expenditures. The deficit is envisaged to edge up to 6 percent in 2023. Revenues are projected to remain broadly stable in near and medium-term as a share of GDP relative to last year. On the expenditure side, the acceleration is largely driven by current spending, with transfers, goods and services, and wages largely reflecting policies to mitigate the unfolding crises, raising fiscal deficit, and exacerbating external financing needs. These multiple crises could complicate the implementation of some reforms envisioned under the ECF/EFF arrangement. However, over the medium-term, improvements in revenue and spending efficiency and supporting governance reforms under the program are expected to support fiscal consolidation and improve debt sustainability. Measures to be taken to that effect include strengthening tax administration and improving tax compliance; streamlining of tax exemptions; improvements to the efficiency of capital spending by strengthening public investment management; strengthening the unified public wage system and improving control over the wage bill; and current expenditure rationalization. Given the shock to revenues, the crisis-driven expansion in necessary spending, and binding domestic financing constraints in 2022, total public debt is envisaged to peak at about 40 percent of GDP in 2024 before declining to about 38 percent in 2027.

- **External sector.** The current account deficit worsened to 11.7 percent of GDP in 2021, from about 8 percent of GDP in 2020, reflecting a strong rebound in economic activity and an uptick in the energy import bill. The current account deficit is expected to worsen further to 13.4 percent of GDP in 2022 due to reduced exports and a spike in commodity prices of imports, before narrowing to 8.3 percent of GDP by 2027; financed by capital and investment flows catalyzed by the ECF/EFF program. Despite the pandemic, the MDL strengthened in 2020–21, but is expected to weaken in 2022, reflecting an increase in imports coupled with subdued capital inflows due to the heightened uncertainty. At end-December 2021, gross international reserves stood at US$3.9 billion, up from US$3.78 billion recorded in 2020, to comprise 173.6 percent of the Fund’s composite reserve adequacy metric. Gross international reserves are expected to decline in 2022 due to a slump in capital inflows amid heightened uncertainty and an increase in commodity prices of imports but are expected to trend upward from 2023 and beyond, ensuring reserves adequacy.

- **External borrowing.** The DSA assumes that all contracted but undisbursed concessional loans will be fully disbursed over the medium-term as planned by the authorities. Commercial borrowings, with Moldova having graduated from IDA-eligible borrowing in 2021, are projected to rise over the longer term to finance the country's high development needs. This plays a key role in the DSA and explains to some extent the upward shift in debt burden indicators after 2030, including for total external debt level indicators.[9] Moldova will continue to benefit from significant grant financing in the medium-term, driven in large part by the profile of the new concessional borrowing with the grant element of new borrowing above 35 percent. In the short-term, the external financing need—estimated at about US$663 million in 2022[10]—will be fully covered by the World Bank's Development Policy Operation (DPO) (US$159.2 million),[11] the European Commission (US$132.1 million), other development partners' disbursements (about US$198.3 million), and the augmented ECF/EFF disbursement of about US$173.3 million (SDR 149.45 million, of which SDR 65.65 million under the EFF and SDR 83.8 million under the ECF), all of which are to be disbursed for budget support.[12] In 2023–25, the remaining external financing gap of US$1,270 million will be financed mainly by the IMF disbursements (around US$545 million) under the ECF/EFF program, European Commission funds via macro-financial assistance to Moldova under a new financing package (about US$349 million), the World Bank's DPO (US$157 million), and other development partners' disbursements (US$219 million).

- **Public debt-to-GDP ratio is expected to increase in 2022–24 with an increase in domestic and external borrowing.** An increase in public debt reflects the government increasing financing needs to mitigate the economic and humanitarian spillovers of the war on Ukraine, while also responding to rising energy cost and food prices. In 2022, external debt is envisaged to rise by about 6 percentage points of GDP with financing from multilateral and bilateral sources. Domestic borrowing is assumed to be net zero in 2022, covering the costs of rolling over existing debt. Demand for government securities is expected to improve in 2023, allowing modest net financing of about MDL 1 billion and thereafter demand is assumed to resurge. The weighted average interest rate on short-term debt is assumed to be around 16 percent in 2022, falling to 13 percent in 2023 and declining thereafter over the medium-term to 8–9 percent.

[9] While this assumption is not based on concrete borrowing plans in the longer-term, it reflects the baseline assumptions, under which Moldova will continue to borrow into the future to finance productive infrastructure investments.
[10] Exceptional financing.
[11] This includes exceptional financing from the IDA19 Crisis Response Window, as approved by the Board of Executive Directors in June 2021 and the approval of the Exceptional IDA19 Support to Moldova endorsed by IDA Deputies in April 2022.
[12] The authorities also received new SDR allocation of about US$236 million (SDR 165.3 million) in 2021 which was channeled for budget support.

Text Table 2. Moldova: Key Macroeconomic Assumptions
(DSA December 2022 vs DSA May 2022)

	2019-2021	2022-2027	2028-2032	2022-32
Real GDP growth (percent)				
Curent DSA	3.1	3.2	5.1	4.1
Previous DSA	3.1	3.9	5.0	4.4
Inflation (GDP deflator, in US dollar terms)				
Curent DSA	4.0	1.9	1.9	1.9
Previous DSA	3.3	0.8	1.9	1.3
Total Revenue (percent of GDP)[1]				
Curent DSA	30.6	31.6	32.5	32.0
Previous DSA	30.4	31.6	33.0	32.2
Current Account Deficit (non-interest, in percent of GDP)				
Curent DSA	9.0	9.6	6.4	8.1
Previous DSA	8.9	9.6	6.6	8.2

Source: Moldova authorities and Staff calculations.

[1] Total revenue, excluding grants.

5. **The debt sustainability framework's realism tools suggest that the baseline projections are reasonable (Figures 3 and 4).** There is a deviation in the evolution of the projection of external and PPG debt to GDP ratios for the current and previous DSA vintages, and from the DSA from the 5 years past. In terms of projections, the current DSA deviates from the previous DSA mainly due to the incorporation of revised macroeconomic and borrowing assumptions. For the **external public debt**, projected debt ratios over the medium term have risen owing to an expected increase in financing needs to provide social and economic support to cushion the effects of the war on Ukraine on Moldova and increased energy costs, in line with 5-year ahead projected changes. In addition, marginally higher financing cost (compared to the previous 5 years) is also projected to increase debt ratios. The increase in the external debt ratio relative to the five-year historical change is due mostly to exchange rate movements, other residuals, and developments in the current account and FDI.[13] For the **total public debt**, the increase in the projected debt ratios to GDP in the medium term is driven mainly by the widening primary balance and exchange rate movements which more than offsets the negative contribution to debt from strong real GDP growth, whereas the decline compared to the five-year historical debt ratios was due to real exchange rate factors and resilient real GDP growth. The difference over 2021–22 between the baseline growth projections and growth projections implied by the standard fiscal multipliers in Figure 4, reflects the scarring impact of the COVID pandemic in some sectors of the economy and the war on Ukraine on confidence in the economy in 2022. Growth is expected to rebound in 2023 to 1.5 percent and to hover at an average of 5 percent in the medium-term. The projected 3-year adjustment in the primary deficit is similar to observed in historical data

[13] The relatively large residuals in external financing mainly reflect a drawdown of reserves, caused by financing from the capital and financial accounts falling short of the current account deficit, and change in the private sector debt.

from peers with Fund-supported programs (Figure 4) and is consistent with the authorities' commitment with continued fiscal consolidation.

6. **Public investment and growth.** The ECF/EFF-supported program aims at augmenting public investment with growth-enhancing structural reforms, including SOEs reform, and an improvement of the business environment. Both are expected to crowd-in and enhance domestic and foreign private investments in support of the higher projected growth trajectory over the medium term (Figure 4).

COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TESTS

7. **Moldova's debt carrying capacity is assessed to be strong, unchanged from the previous DSA.** The composite indicator (CI), which captures the impact of several factors through a weighted average of an institutional indicator,[14] real GDP growth, remittances,[15] international reserves, and world growth, confirms that Moldova's debt carrying capacity is classified to be strong, which is unchanged from the previous two DSA rounds. Applicable thresholds and benchmark are presented in Text Table 3.[16]

8. **The DSA includes a stress test that follows standardized settings.**[17] All the PPG external debt indicators remain below the policy relevant thresholds (Table 4 and Figure 1). The standardized stress test indicates a breach of public debt thresholds beyond 2030 (Table 5 and Figure 2). Moldova does not have prominent economic features such as significant reliance on commodity exports, market financing that would require additional tailored stress tests or other modules, nor severely affected by natural disasters. Regarding the contingent liability stress test, a shock of 12 percent of GDP is used. The severity of the shock was calibrated to the most recent domestic banking crisis event in 2016 that resulted in recapitalization of about 8.3 percent of GDP.

EXTERNAL DEBT SUSTAINABILITY ANALYSIS

9. **Under the baseline scenario and alternative scenarios, all external debt indicators continue to remain below their policy-relevant thresholds (Table 2, Figure 1).** During 2022–27, new external financing will consist primarily of borrowing from multilateral and bilateral lenders, while commercial borrowing is expected to start playing a larger role in the long-term from 2029, reaching about 70 percent of total public sector borrowing by 2042. The present value of PPG external debt is projected at 16.7 percent of GDP in 2022, decreasing to almost 9 percent by 2032**.** The ratio will remain well below the 55 percent threshold under the baseline scenario throughout the projection period.

[14] The World Bank's CPIA.

[15] Remittances for Moldova comprise of two Balance of Payments (BoP) accounts: compensation of employees and remittances.

[16] Moldova's CI is 3.11, which corresponds to a strong debt-carrying capacity based on the IMF's October 2022 World Economic Outlook and World Bank's 2021 CPIA.

[17] The shock applied is Real GDP growth set to its historical average (10 years) minus one standard deviation, or the baseline projection minus one standard deviation, whichever is lower for the second and third years of the projection period.

Text Table 3. Moldova: Debt Carrying Capacity and Applicable Thresholds

Debt Carrying Capacity and Thresholds

Country	Moldova
Country Code	921

Debt Carrying Capacity	Strong

Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintages
Strong	Strong 3.11	Strong 3.13	Strong 3.14

Note: Until the April 2019 WEO vintage is released, the two previous vintages ago classification and corresponding score are based solely on the CPIA per the previous framework.

Applicable thresholds

APPLICABLE	
EXTERNAL debt burden thresholds	
PV of debt in % of	
Exports	240
GDP	55
Debt service in % of	
Exports	21
Revenue	23

APPLICABLE	
TOTAL public debt benchmark	
PV of total public debt in percent of GDP	70

Similarly, debt service indicators remain below their respective thresholds. Improvements in debt-management practices envisaged under the authorities' reforms supported by the ECF/EFF program and development of domestic debt market will give further resilience to shocks affecting debt service needs. A tailored stress test for the contingent liability shock also does not cause any breach of relevant thresholds. Under the most extreme scenario (export shock), most PPG debt indicators show increase in their values but remain well below their indicative thresholds. These outcomes hinge on continued prudent fiscal policy and sound macroeconomic and debt management policies envisaged under the ECF/EFF program. Additionally, market financing risk module indicates a moderate risk of heightened liquidity pressures. However, the shock is not relevant as Moldova does not plan to issue market debt in the near future.

10. While the external risk rating is determined by the PPG external debt, large private external debt poses some potential rollover risks. In the baseline scenario, private external debt to GDP ratio is expected to remain broadly stable at about 44 percent of GDP in 2022, but it is envisaged to decline to about 36 percent of GDP in 2032 supported by the strong real growth and by a larger contribution of FDIs and other non-debt creating flows to the current account financing. Potential rollover risks from a significant stock of private sector debt are partly mitigated by private sector savings abroad.

PUBLIC DEBT SUSTAINABILITY ANALYSIS

11. Under the baseline, the indicators of the overall public debt burden are below the benchmark threshold, but risks remain. Under the baseline, the PV of total PPG debt-to-GDP ratio is projected to increase initially to about 28 percent of GDP in 2022, from about 27 percent of GDP in 2020, and is expected to broadly stabilize around 30 percent of GDP over the medium-term, remaining below the 70 percent benchmark in the medium-to-long term (Figure 2).

12. The ratio of PV of total PPG debt-to-GDP ratio exceeds its threshold under the real GDP growth shock. Over the long-term, under possible real GDP growth shock scenario[18] it remains elevated, breaching the threshold starting from 2030, as the country accumulates higher debt to finance larger fiscal and current account deficits. Such a scenario highlights the risks to debt sustainability faced by the authorities in the absence of needed reforms. A significant contingent liabilities shock (to SOEs and PPPs and/or financial market distress) would also increase debt levels notably, though such risks are difficult to quantify accurately due to lack of quality data on SOEs and PPPs. The authorities' planned structural reforms underpinned by the ECF/EFF program are expected to improve revenues, increase spending efficiency, and boost growth, thereby mitigating further risk of unsustainable debt. As such, Moldova's overall debt trajectory is projected to remain sustainable despite the expansion in fiscal spending under the ECF/EFF program that is needed to achieve pressing developmental goals as well as to support the post-Covid recovery and provide economic and humanitarian assistance due to the war on Ukraine.

RISK RATING AND VULNERABILITIES

13. Moldova's risk of external debt distress remains low but overall risk of debt distress is classified as moderate.

- **Debt burden indicators for PPG external debt remain well below the indicative debt thresholds, under both the standardized and tailored stress tests.** However, significant private external debt poses potential roll-over risks.

- **Moldova's overall public debt dynamics is also projected to remain on a sustainable path under the baseline scenario but subject to vulnerabilities a growth shock.** Assuming the economy stalls with the lingering effects, the public debt ratio exceeds its benchmark by the end of the decade leading to an overall public debt at moderate risk of distress.

- **Risks to the debt outlook are significant and tilted to the downside.** Given sensitivity of the debt projections to growth, adverse spillovers from a protracted war on Ukraine, coupled with increased financing needs to cater for high cost of energy import present significant risk to the outlook on debt as Moldova continues to grapple with persistent external and domestic headwinds.

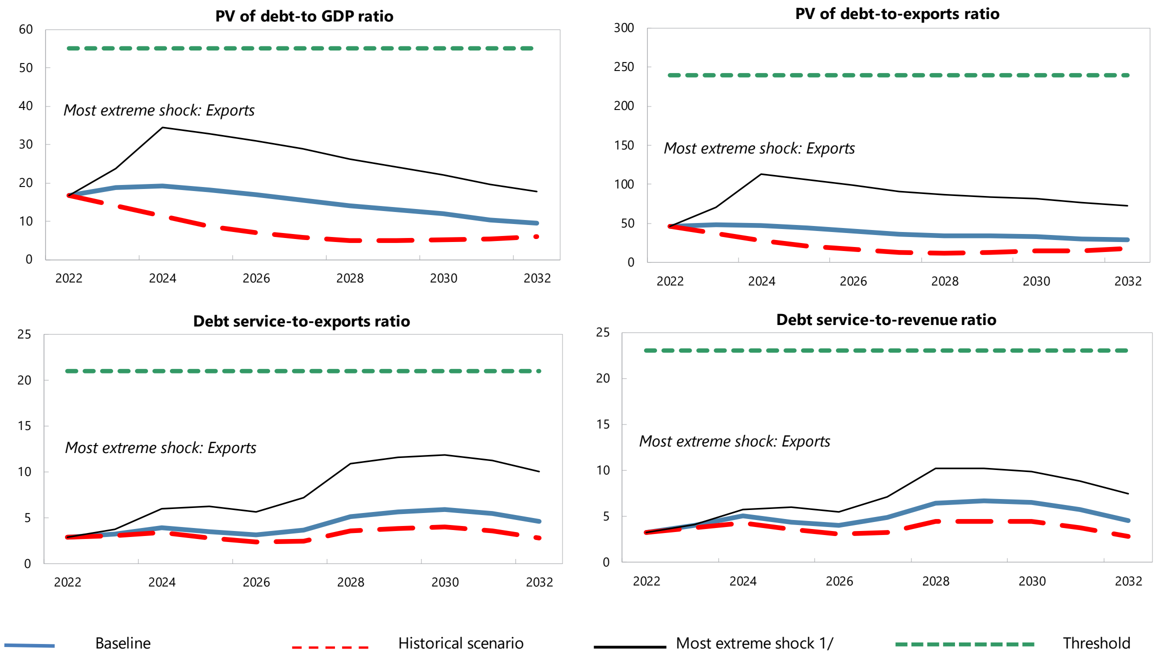
[18] The shock occurs in the second and third years of the projection period and is at a level equivalent to one standard deviation below the baseline projections (i.e., an average of -3 percent per year).

- **Mitigating debt risk requires sound macroeconomic management and sustained structural reforms**. The authorities should continue to maintain fiscal discipline and fiscal risk management. As the country is expected to accumulate significant debt to finance larger fiscal and current account deficits, strong and sustained political commitment is needed to deliver on fiscal policy with prudent deficit levels, revenue mobilization, and improved debt and fiscal risk management are imperative to safeguard Moldova's debt sustainability. In the near and medium-term, authorities should rely on concessional financing consistent with the ECF/EFF-supported program and further strengthen public investment management to finance priority projects with high growth and social returns. Contingent liability risks—including from SOEs—should be monitored carefully. Advancing structural reforms remain key to increasing the economy's growth potential, reducing vulnerability to shocks. Furthermore, development of the domestic debt market could further strengthen the outlook for debt sustainability, especially considering the expected transition of financing mix from concessional to commercial over the long term. As part of the ECF/EFF-supported program, steps will also be undertaken to strengthen debt and cash management to enable a broader range of longer maturity debt instruments to lengthen the maturity of domestic debt and deepen the secondary government securities market. Moldova will also seek to further strengthen debt management by developing domestic debt market and develop a new platform for retail investors. These will help to reduce the PPG domestic debt roll-over and interest rate risks.

AUTHORITIES' VIEW

14. The authorities broadly agreed with the staff's assessment of Moldova's public debt situation and recommendations on debt management policy. They broadly concurred with the staff's assessment of debt composition, projections, risk ratings and distress level. They recognize that maintaining fiscal discipline and managing fiscal risks is critical to ensure fiscal and debt sustainability. While they have been making progress on debt management, they highlighted the need for further development of domestic debt market and improvement in debt statistics and debt management frameworks by making full use of IMF technical assistance and training resources.

Figure 1. Moldova: Indicators of Public Guaranteed External Debt Under Alternative Scenarios, 2022–2032



Customization of Default Settings		
	Size	Interactions
Tailored Stress		
Combined CL	Yes	
Natural disaster	n.a.	n.a.
Commodity price	n.a.	n.a.
Market financing	Yes	No

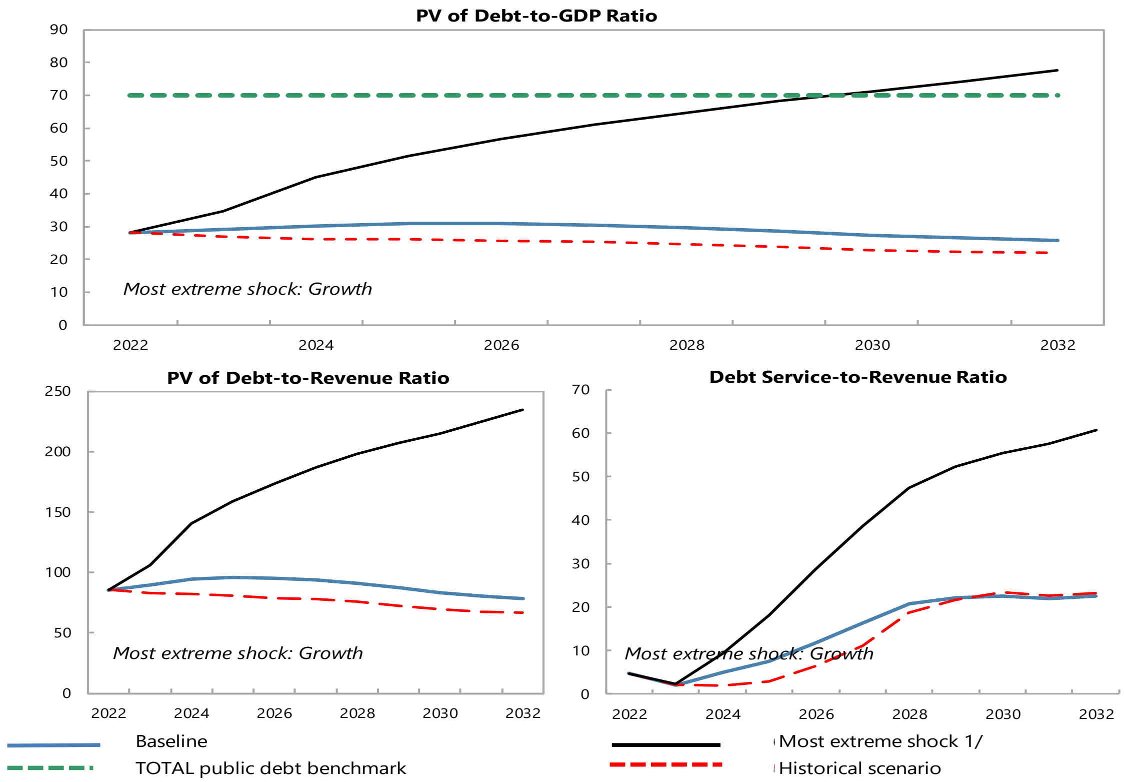
Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

Borrowing assumptions on additional financing needs resulting from the stress tests*		
	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	2.6%	2.6%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	21	21
Avg. grace period	3	3

* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in or before 2032. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

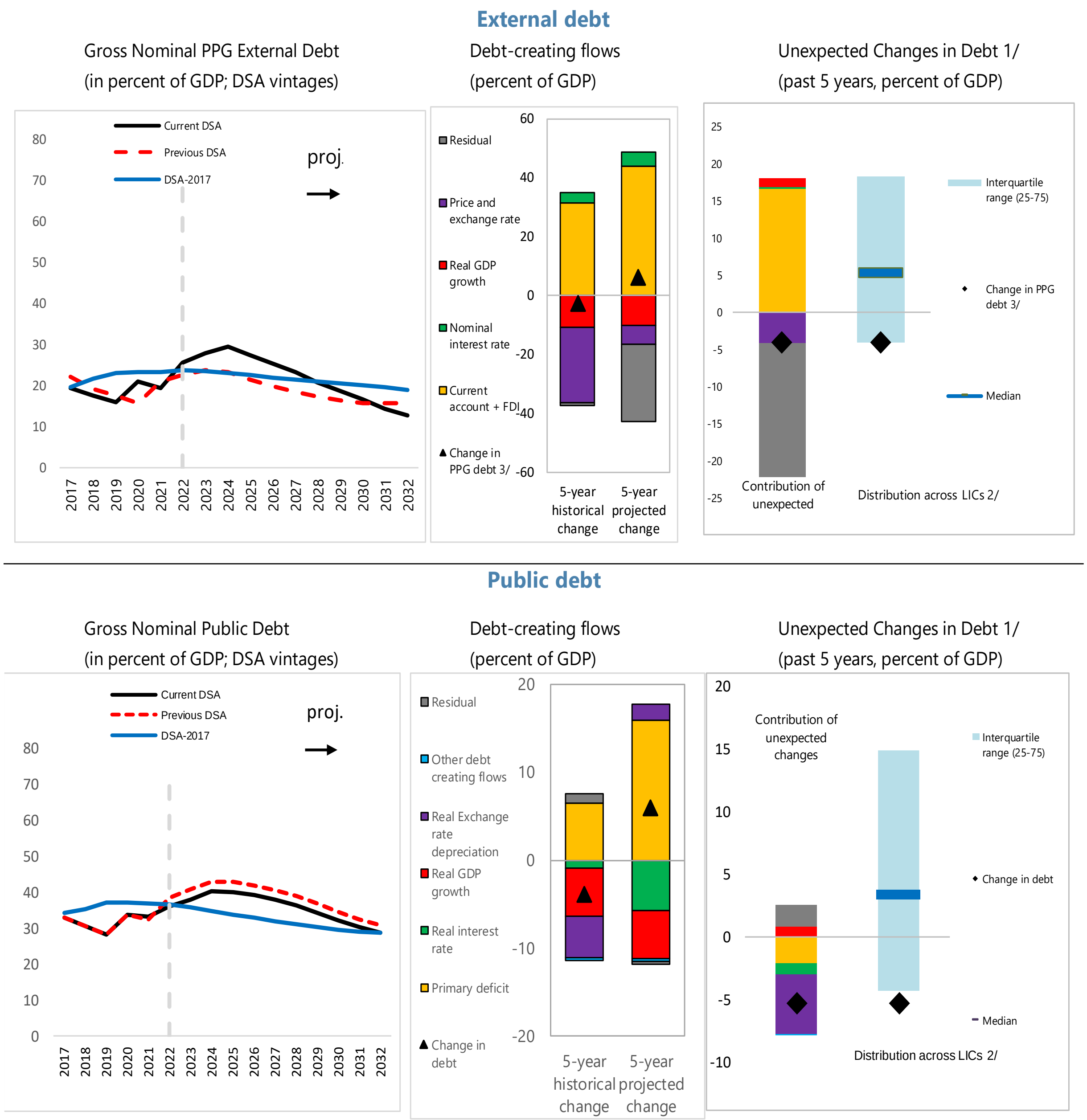
Figure 2. Moldova: Indicators of Public Debt Under Alternative Scenarios, 2022–2032



Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	37%	37%
Domestic medium and long-term	32%	32%
Domestic short-term	31%	31%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	2.6%	2.6%
Avg. maturity (incl. grace period)	21	21
Avg. grace period	3	3
Domestic MLT debt		
Avg. real interest rate on new borrowing	0.3%	0.3%
Avg. maturity (incl. grace period)	3	3
Avg. grace period	1	1
Domestic short-term debt		
Avg. real interest rate	2.7%	2.7%

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.
Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in or before 2032. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

Figure 3. Moldova: Drivers of Debt Dynamics – Baseline Scenario



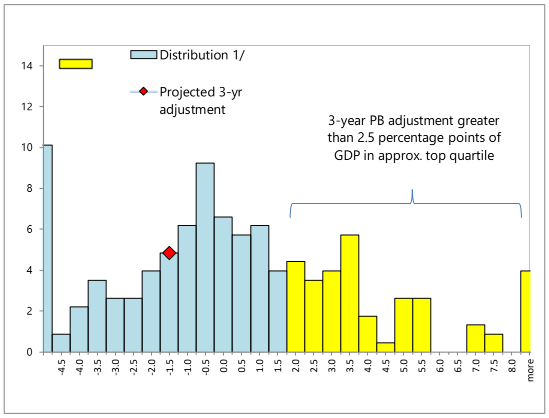
1/ Difference between anticipated and actual contributions on debt ratios.

2/ Distribution across LICs for which LIC DSAs were produced.

3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

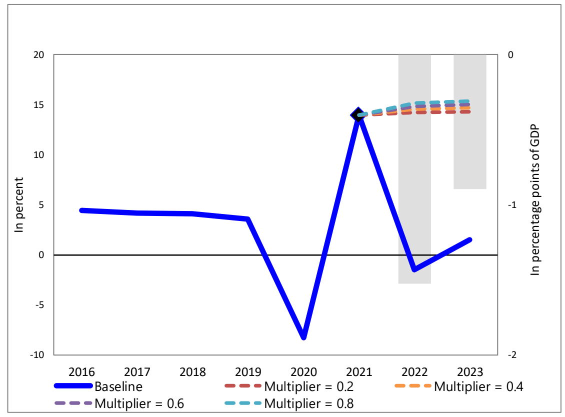
Figure 4. Moldova: Realism Tools

3-Year Adjustment in Primary Balance (Percentage points of GDP)



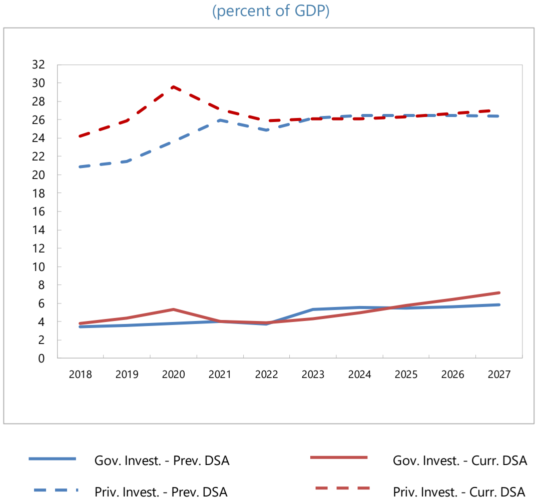
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

Fiscal Adjustment and Possible Growth Paths 1/



1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

Public and Private Investment Rates (percent of GDP)



Contribution to Real GDP growth (percent, 5-year average)

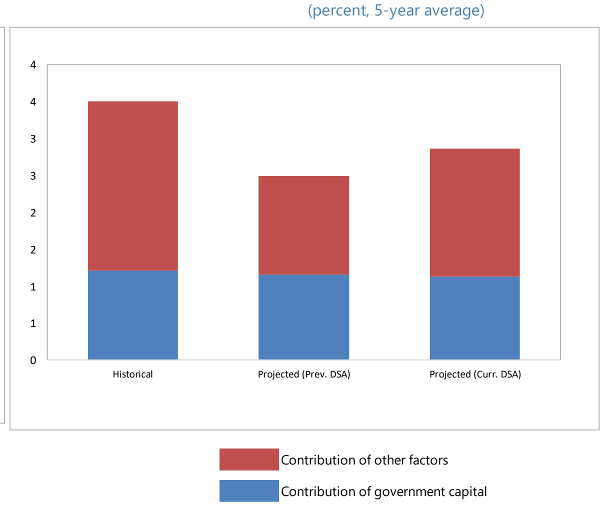
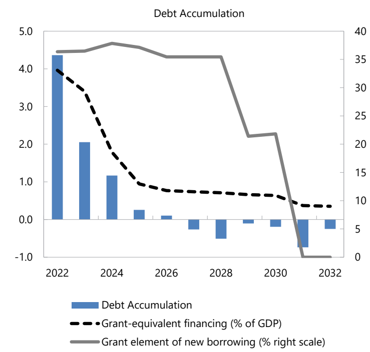
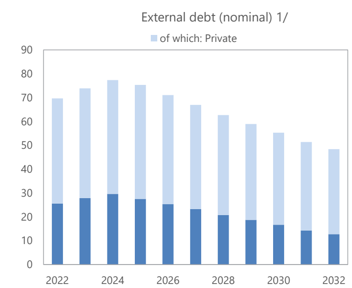


Table 2. Moldova: External Debt Sustainability Framework, Baseline Scenario, 2021–2042
(In percent of GDP, unless otherwise indicated)

	Actual	Projections								Average 8/	
	2021	2022	2023	2024	2025	2026	2027	2032	2042	Historical	Projections
External debt (nominal) 1/	**64.2**	**69.7**	**73.9**	**77.3**	**75.3**	**71.1**	**66.9**	**48.4**	**36.4**	**71.2**	**64.6**
of which: public and publicly guaranteed (PPG)	**19.4**	**25.6**	**27.9**	**29.6**	**27.5**	**25.3**	**23.3**	**12.7**	**10.5**	**19.8**	**22.0**
Change in external debt	-9.2	5.4	4.2	3.5	-2.0	-4.3	-4.1	-3.0	-0.8		
Identified net debt-creating flows	**-1.6**	**13.9**	**9.3**	**6.9**	**4.7**	**3.3**	**3.2**	**1.6**	**-0.4**	**2.2**	**4.6**
Non-interest current account deficit	**11.1**	**12.8**	**10.8**	**10.3**	**9.0**	**7.7**	**7.1**	**5.8**	**3.1**	**6.9**	**8.1**
Deficit in balance of goods and services	27.3	30.4	30.5	29.7	27.7	26.0	25.2	19.2	11.2	**27.1**	**25.2**
Exports	30.7	36.1	38.4	40.3	40.9	41.6	42.6	32.5	18.9		
Imports	58.0	66.4	68.9	70.0	68.6	67.6	67.7	51.7	30.2		
Net current transfers (negative = inflow)	-12.9	-12.6	-13.1	-12.1	-11.7	-11.2	-10.7	-7.6	-3.8	**-13.4**	**-10.5**
of which: official	-0.8	-1.8	-1.6	-0.2	-0.2	-0.2	-0.2	-0.3	-0.2		
Other current account flows (negative = net inflow)	-3.3	-4.9	-6.5	-7.3	-7.0	-7.1	-7.3	-5.8	-4.3	**-6.7**	**-6.5**
Net FDI (negative = inflow)	**-1.7**	**-0.4**	**-1.5**	**-1.6**	**-1.6**	**-1.8**	**-1.8**	**-2.3**	**-2.3**	**-2.3**	**-1.8**
Endogenous debt dynamics 2/	**-11.0**	**1.5**	**0.0**	**-1.8**	**-2.7**	**-2.6**	**-2.2**	**-1.9**	**-1.2**	**-2.5**	**-1.7**
Contribution from nominal interest rate	0.6	0.6	1.0	1.2	0.9	1.0	1.2	0.5	0.6		
Contribution from real GDP growth	-8.6	0.9	-1.0	-3.1	-3.6	-3.5	-3.4	-2.4	-1.8		
Contribution from price and exchange rate changes	-2.9	...	...	...	...	...	...	...	...		
Residual 3/	**-7.6**	**-8.5**	**-5.1**	**-3.4**	**-6.7**	**-7.6**	**-7.3**	**-4.6**	**-0.4**	**-2.1**	**-6.1**
of which: exceptional financing	-0.5	-2.0	-2.7	-0.9	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators											
PV of PPG external debt-to-GDP ratio	**13.1**	**16.7**	**18.7**	**19.2**	**18.1**	**16.9**	**15.4**	**9.5**	**9.9**		
PV of PPG external debt-to-exports ratio	**42.7**	**46.4**	**48.6**	**47.6**	**44.1**	**40.5**	**36.3**	**29.2**	**52.1**		
PPG debt service-to-exports ratio	**3.9**	**2.9**	**3.2**	**3.9**	**3.4**	**3.1**	**3.7**	**4.6**	**11.6**		
PPG debt service-to-revenue ratio	**3.9**	**3.3**	**4.0**	**5.0**	**4.4**	**4.0**	**4.9**	**4.6**	**6.8**		
Gross external financing need (Million of U.S. dollars)	4613.8	5009.7	5160.2	5483.9	5780.7	6184.2	6487.6	7763.3	12282.9		
Key macroeconomic assumptions											
Real GDP growth (in percent)	13.9	-1.5	1.5	4.3	5.0	5.1	5.1	5.1	5.1	**3.5**	**4.1**
GDP deflator in US dollar terms (change in percent)	4.1	5.9	-0.9	-0.9	2.6	2.5	2.3	1.9	1.9	**2.0**	**1.9**
Effective interest rate (percent) 4/	0.9	0.9	1.4	1.7	1.3	1.4	1.7	1.1	1.7	**1.0**	**1.4**
Growth of exports of G&S (US dollar terms, in percent)	30.3	22.7	7.1	8.6	9.3	9.6	9.8	1.5	1.5	**5.2**	**6.8**
Growth of imports of G&S (US dollar terms, in percent)	33.6	19.6	4.3	5.0	5.7	6.1	7.6	1.5	1.5	**4.8**	**5.1**
Grant element of new public sector borrowing (in percent)	...	36.4	36.5	37.8	37.1	35.5	35.5	0.0	0.0	**...**	**27.0**
Government revenues (excluding grants, in percent of GDP)	31.0	31.3	30.8	31.6	31.8	32.1	32.1	32.7	32.6	**29.7**	**32.0**
Aid flows (in Million of US dollars) 5/	272.3	504.4	479.8	235.5	220.2	225.9	234.9	91.7	109.3		
Grant-equivalent financing (in percent of GDP) 6/	...	4.0	3.4	1.8	0.9	0.8	0.7	0.4	0.2	**...**	**1.3**
Grant-equivalent financing (in percent of external financing) 6/	...	49.5	55.1	44.4	54.0	58.5	58.1	31.4	8.3	**...**	**49.0**
Nominal GDP (Million of US dollars)	13,682	14,271	14,357	14,833	15,986	17,215	18,503	26,106	51,968		
Nominal dollar GDP growth	18.7	4.3	0.6	3.3	7.8	7.7	7.5	7.1	7.1	**5.6**	**6.1**
Memorandum items:											
PV of external debt 7/	57.9	60.8	64.7	66.9	65.9	62.6	59.1	45.1	35.7		
In percent of exports	188.7	168.5	168.5	165.8	161.0	150.3	138.9	138.9	188.6		
Total external debt service-to-exports ratio	68.1	60.6	61.5	62.3	62.4	63.4	61.5	69.8	104.7		
PV of PPG external debt (in Million of US dollars)	1790.5	2387.6	2680.8	2848.5	2886.4	2903.0	2857.6	2473.0	5127.6		
(PVt-PVt-1)/GDPt-1 (in percent)		4.4	2.1	1.2	0.3	0.1	-0.3	-0.2	0.6		
Non-interest current account deficit that stabilizes debt ratio	20.3	7.4	6.6	6.8	11.0	11.9	11.3	8.8	3.9		

Definition of external/domestic debt	**Residency-based**
Is there a material difference between the two criteria?	**Yes**





Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - \rho(1+g) + \varepsilon\alpha(1+r)]/(1+g+\rho+g\rho)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, ρ = growth rate of GDP deflator in U.S. dollar terms, Ɛ=nominal appreciation of the local currency, and α= share of local currency-denominated external debt in total external debt.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Current-year interest payments divided by previous period debt stock.

5/ Defined as grants, concessional loans, and debt relief.

6/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

7/ Assumes that PV of private sector debt is equivalent to its face value.

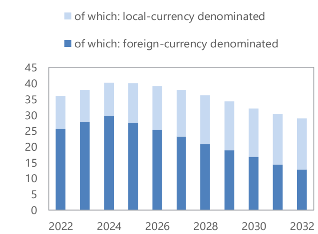
8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

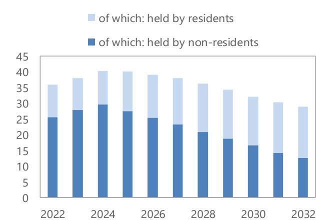
Table 3. Moldova: Public Sector Debt Sustainability Framework, Baseline Scenario, 2021–2042
(In percent of GDP, unless otherwise indicated)

	Actual	Projections								Average 6/	
	2021	2022	2023	2024	2025	2026	2027	2032	2042	Historical	Projections
Public sector debt 1/	**33.2**	**36.0**	**37.9**	**40.3**	**40.0**	**39.1**	**38.0**	**28.8**	**23.7**	**31.0**	**35.7**
of which: external debt	**19.4**	**25.6**	**27.9**	**29.6**	**27.5**	**25.3**	**23.3**	**12.7**	**10.5**	**19.8**	**22.0**
Change in public sector debt	-0.5	2.8	2.0	2.3	-0.2	-1.0	-1.1	-1.4	-0.4		
Identified debt-creating flows	**-3.1**	**2.4**	**1.9**	**2.3**	**-0.2**	**-0.3**	**-0.1**	**-0.7**	**-0.3**	**1.0**	**0.3**
Primary deficit	**1.8**	**3.3**	**4.2**	**3.4**	**2.6**	**2.3**	**2.1**	**0.9**	**0.7**	**1.2**	**2.2**
Revenue and grants	32.0	33.0	32.5	32.0	32.3	32.6	32.5	33.0	32.8	**30.8**	**32.7**
of which: grants	1.0	1.6	1.7	0.4	0.5	0.5	0.4	0.4	0.2		
Primary (noninterest) expenditure	33.8	36.3	36.7	35.4	35.0	34.8	34.6	33.9	33.6	**31.9**	**34.8**
Automatic debt dynamics	**-4.9**	**-0.9**	**-2.1**	**-1.1**	**-2.8**	**-2.6**	**-2.2**	**-1.6**	**-1.1**		
Contribution from interest rate/growth differential	-5.1	-2.3	-2.1	-1.9	-2.6	-2.4	-2.1	-1.5	-0.9		
of which: contribution from average real interest rate	-0.9	-2.8	-1.6	-0.3	-0.6	-0.5	-0.2	0.0	0.2		
of which: contribution from real GDP growth	-4.1	0.5	-0.5	-1.6	-1.9	-1.9	-1.9	-1.5	-1.2		
Contribution from real exchange rate depreciation	0.2	1.4	0.0	0.8	-0.2	-0.1	-0.1	-0.2	-0.1		
Other identified debt-creating flows	**-0.1**	**0.0**	**-0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.8**	**0.0**
Privatization receipts (negative)	-0.1	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of contingent liabilities (e.g., bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Debt relief (HIPC and other)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	**2.6**	**0.3**	**0.1**	**0.0**	**0.0**	**-0.7**	**-1.0**	**-0.7**	**0.0**	**-0.1**	**-0.7**
Sustainability indicators											
PV of public debt-to-GDP ratio 2/	**26.9**	**28.2**	**29.1**	**30.2**	**31.0**	**31.0**	**30.5**	**25.8**	**23.3**		
PV of public debt-to-revenue and grants ratio	**84.1**	**85.6**	**89.8**	**94.5**	**95.8**	**95.1**	**93.6**	**78.1**	**71.0**		
Debt service-to-revenue and grants ratio 3/	**6.7**	**4.8**	**2.1**	**5.1**	**7.5**	**11.9**	**16.3**	**22.4**	**20.8**		
Gross financing need 4/	3.9	4.9	4.7	5.0	5.0	6.1	7.3	8.3	7.6		
Key macroeconomic and fiscal assumptions											
Real GDP growth (in percent)	13.9	-1.5	1.5	4.3	5.0	5.1	5.1	5.1	5.1	**3.5**	**4.1**
Average nominal interest rate on external debt (in percent)	0.9	0.6	1.2	2.3	0.5	0.9	1.9	0.9	4.4	**1.1**	**1.3**
Average real interest rate on domestic debt (in percent)	-3.2	-11.3	-9.9	-3.9	-2.7	-1.8	-1.4	-0.3	-1.3	**0.2**	**-3.0**
Real exchange rate depreciation (in percent, + indicates depreciation)	1.0	...	...	...	...	...	...	...	...	**0.8**	**...**
Inflation rate (GDP deflator, in percent)	6.3	15.0	11.0	5.5	5.5	5.5	5.5	5.0	5.0	**5.8**	**6.6**
Growth of real primary spending (deflated by GDP deflator, in percent)	7.5	5.8	2.6	0.7	3.6	4.7	4.4	4.7	5.0	**4.1**	**4.1**
Primary deficit that stabilizes the debt-to-GDP ratio 5/	2.3	0.6	2.3	1.1	2.8	3.2	3.2	2.3	1.1	**1.4**	**2.6**
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Definition of external/domestic debt	**Residency-based**
Is there a material difference between the two criteria?	**Yes**

Public sector debt 1/





Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central, state, and local governments plus social security, central bank, government-guaranteed debt, spending arrears, non-guaranteed majority owned SOE debt. Definition of external debt is Residency-based.

2/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.

3/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.

4/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period and other debt creating/reducing flows.

5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilizes the debt ratio only in the year in question.

6/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Table 4. Moldova: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2022–2032
(In percent)

	Projections 1/										
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	PV of debt-to GDP ratio										
Baseline	17	19	19	18	17	15	14	13	12	10	9
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	17	14	11	9	7	6	5	5	5	5	6
B. Bound Tests											
B1. Real GDP growth	17	21	23	22	20	19	17	16	14	13	11
B2. Primary balance	17	19	20	19	18	17	16	15	14	12	11
B3. Exports	17	24	34	33	31	29	26	24	22	20	18
B4. Other flows 3/	17	21	24	23	21	20	18	17	15	13	12
B5. Depreciation	17	24	17	15	14	13	11	10	10	8	8
B6. Combination of B1-B5	17	24	25	24	23	21	19	17	16	14	13
C. Tailored Tests											
C1. Combined contingent liabilities	17	22	24	23	23	22	21	20	19	17	16
Threshold	55	55	55	55	55	55	55	55	55	55	55
	PV of debt-to-exports ratio										
Baseline	46	49	48	44	40	36	35	34	33	30	29
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	46	37	28	21	17	13	12	13	14	15	18
B. Bound Tests											
B1. Real GDP growth	46	49	48	44	40	36	35	34	33	30	29
B2. Primary balance	46	50	51	48	44	40	39	38	37	35	34
B3. Exports	46	71	113	106	99	90	87	84	81	76	73
B4. Other flows 3/	46	55	60	56	51	46	44	43	42	39	37
B5. Depreciation	46	49	32	30	27	23	22	22	21	19	18
B6. Combination of B1-B5	46	65	57	64	59	52	50	49	47	44	42
C. Tailored Tests											
C1. Combined contingent liabilities	46	58	59	57	55	51	51	51	51	50	50
Threshold	240	240	240	240	240	240	240	240	240	240	240
	Debt service-to-exports ratio										
Baseline	3	3	4	3	3	4	5	6	6	5	5
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	3	3	3	3	2	2	4	4	4	4	3
B. Bound Tests											
B1. Real GDP growth	3	3	4	3	3	4	5	6	6	5	5
B2. Primary balance	3	3	4	4	3	4	5	6	6	6	5
B3. Exports	3	4	6	6	6	7	11	12	12	11	10
B4. Other flows 3/	3	3	4	4	3	4	6	7	7	6	6
B5. Depreciation	3	3	4	3	3	3	4	4	5	4	3
B6. Combination of B1-B5	3	3	5	4	4	5	7	8	8	7	6
C. Tailored Tests											
C1. Combined contingent liabilities	3	3	4	4	3	4	6	6	6	6	5
Threshold	21	21	21	21	21	21	21	21	21	21	21
	Debt service-to-revenue ratio										
Baseline	3	4	5	4	4	5	6	7	7	6	5
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	3	4	4	4	3	3	4	4	4	4	3
B. Bound Tests											
B1. Real GDP growth	3	4	6	5	5	6	8	8	8	7	6
B2. Primary balance	3	4	5	5	4	5	7	7	7	6	5
B3. Exports	3	4	6	6	5	7	10	10	10	9	7
B4. Other flows 3/	3	4	5	5	4	6	8	8	8	7	5
B5. Depreciation	3	5	6	5	4	6	6	7	7	6	4
B6. Combination of B1-B5	3	4	6	5	5	7	8	8	8	7	6
C. Tailored Tests											
C1. Combined contingent liabilities	3	4	5	5	5	5	7	7	7	6	5
Threshold	23	23	23	23	23	23	23	23	23	23	23

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the threshold.
2/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
3/ Includes official and private transfers and FDI.

Table 5. Moldova: Sensitivity Analysis for Key Indicators of Public Debt, 2022–2032
(In percent)

	Projections 1/										
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
PV of Debt-to-GDP Ratio											
Baseline	28	29	30	31	31	30	30	29	27	27	26
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	28	27	26	26	26	25	25	24	23	22	22
B. Bound Tests											
B1. Real GDP growth	28	35	45	51	57	61	65	68	**71**	**74**	**78**
B2. Primary balance	28	30	33	34	33	33	32	31	29	29	28
B3. Exports	28	34	44	44	44	43	41	39	37	35	33
B4. Other flows 3/	28	32	35	36	36	35	34	32	31	30	28
B5. Depreciation	28	30	29	27	26	24	21	19	16	13	11
B6. Combination of B1-B5	28	29	32	33	34	34	34	33	33	32	32
C. Tailored Tests											
C1. Combined contingent liabilities	28	40	41	41	40	39	38	37	35	34	33
TOTAL public debt benchmark	70	70	70	70	70	70	70	70	70	70	70
PV of Debt-to-Revenue Ratio											
Baseline	86	90	94	96	95	94	91	87	83	80	78
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	86	83	82	81	79	78	76	73	69	68	67
B. Bound Tests											
B1. Real GDP growth	86	106	141	159	173	187	198	207	215	225	234
B2. Primary balance	86	93	103	104	102	101	98	94	89	86	84
B3. Exports	86	104	138	137	135	132	126	119	112	106	101
B4. Other flows 3/	86	97	110	111	109	107	103	99	93	90	86
B5. Depreciation	86	93	89	85	79	72	65	57	48	41	34
B6. Combination of B1-B5	86	91	100	104	105	105	104	102	99	97	96
C. Tailored Tests											
C1. Combined contingent liabilities	86	124	128	127	124	121	117	113	107	104	101
Debt Service-to-Revenue Ratio											
Baseline	5	2	5	8	12	16	21	22	23	22	22
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	5	2	2	3	6	11	19	22	23	23	23
B. Bound Tests											
B1. Real GDP growth	5	2	9	18	29	39	47	52	55	58	61
B2. Primary balance	5	2	6	10	14	18	22	24	24	23	24
B3. Exports	5	2	5	9	13	18	24	25	25	25	25
B4. Other flows 3/	5	2	5	8	12	17	22	23	24	23	23
B5. Depreciation	5	3	6	6	11	15	20	21	20	19	19
B6. Combination of B1-B5	5	2	6	9	14	19	24	26	26	26	27
C. Tailored Tests											
C1. Combined contingent liabilities	5	2	17	17	22	23	26	27	26	25	25

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the benchmark.
2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.
3/ Includes official and private transfers and FDI.